

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	3341	(decrease or decreasing or decreased) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:06
2	BRS	L2	21818	(treat or treating or treated or treatment) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:06
3	BRS	L3	20569	(reduce or reducing or reduced or reduction) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:07
4	BRS	L4	759	(minimize or minimizing or minimized) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:08

	Type	L #	Hits	Search Text	DBs	Time Stamp
5	BRS	L5	5995	(strip or stripping or stripped or stripper) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:30
6	BRS	L6	2181	(etch or etching or etched or etchant) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:09
7	BRS	L7	2211	(clean or cleaning or cleaned or cleaner or cleanse or cleansing or cleansed or cleanser) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:09
8	BRS	L8	9871	(remove or removing or removed or remover) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:10

	Type	L #	Hits	Search Text	DBs	Time Stamp
9	BRS	L9	6313	(dissolve or dissolving or dissolved or dissolution) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:10
10	BRS	L10	1367	(inhibit or inhibiting or inhibited or inhibition) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:10
11	BRS	L11	7376	(prevent or preventing or prevented or prevention) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:11
12	BRS	L12	6253	(disperse or dispersing or dispersed or dispersion) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:11

	Type	L #	Hits	Search Text	DBs	Time Stamp
13	BRS	L13	1734	(leach or leaching or leached) with ((iron or "Fe!" or ferrous or ferric) adj3 (sulphide or sulfide) or FeS or "FeS2" or "FeS.sub.2")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:11
14	BRS	L14	70431	11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 110 or 111 or 112 or 113	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:12
15	BRS	L15	408811	TRIS or tris adj3 (hydroxymethyl) adj3 phosphine or (tetrakis adj3 hydroxymethyl adj3 phosphonium) adj3 (sulfate or sulphate or chloride)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:34
16	BRS	L16	166	114 with 115	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:16

	Type	L #	Hits	Search Text	DBs	Time Stamp
17	BRS	L17	15	116 with (ammonia or ammonium or amine or alkyl adj3 amine or dialkyl adj3 amine or alkylene adj3 diamine or cycloalkyl adj3 amine or methyl adj3 amine or cyclo adj3 alkyl adj3 amine or "NH3" or "NH.sub.3")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:44
18	BRS	L18	181100	(134/\$ or 252/\$ or 510/\$).ccls.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:20
19	BRS	L19	238579	THP	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:20
20	BRS	L20	623266	115 or 119	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:20

	Type	L #	Hits	Search Text	DBs	Time Stamp
21	BRS	L21	275	114 with 120	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:20
22	BRS	L22	15	121 with (ammonia or ammonium or amine or alkyl adj3 amine or dialkyl adj3 amine or alkylene adj3 diamine or cycloalkyl adj3 amine or methyl adj3 amine or cyclo adj3 alkyl adj3 amine or "NH3" or "NH.sub.3")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:27
23	BRS	L23	47045	120 with (ammonia or ammonium or amine or alkyl adj3 amine or dialkyl adj3 amine or alkylene adj3 diamine or cycloalkyl adj3 amine or methyl adj3 amine or cyclo adj3 alkyl adj3 amine or "NH3" or "NH.sub.3")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:33
24	BRS	L24	3899	123 and 118	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:30

	Type	L #	Hits	Search Text	DBs	Time Stamp
25	BRS	L25	408811	"TRIS" or tris adj3 (hydroxymethyl) adj3 phosphine or (tetrakis adj3 hydroxymethyl adj3 phosphonium) adj3 (sulfate or sulphate or chloride)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:31
26	BRS	L26	408811	"TRIS!" or tris adj3 (hydroxymethyl) adj3 phosphine or (tetrakis adj3 hydroxymethyl adj3 phosphonium) adj3 (sulfate or sulphate or chloride)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:32
27	BRS	L27	623266	126 or 119	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:32
28	BRS	L28	47045	127 with (ammonia or ammonium or amine or alkyl adj3 amine or dialkyl adj3 amine or alkylene adj3 diamine or cycloalkyl adj3 amine or methyl adj3 amine or cyclo adj3 alkyl adj3 amine or "NH3" or "NH.sub.3")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:34

	Type	L #	Hits	Search Text	DBs	Time Stamp
29	BRS	L29	408814	"TRIS!" or tris adj (hydroxymethyl) adj phosphine or (tetrakis adj hydroxymethyl adj phosphonium) adj (sulfate or sulphate or chloride or THP)	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD_B; USOCR	2002/10/11 15:35
30	BRS	L30	623274	"TRIS!" or tris adj (hydroxymethyl) adj phosphine or THP or trishydroxymethylphosphine or trishydroxylmethyl adj phosphine or (tetrakis hydroxymethylphosphonium or tetrakishydroxymethyl adj phosphonium) adj (sulfate or sulphate or chloride) or (tetrakis adj hydroxymethyl adj phosphonium) adj (sulfate or sulphate or chloride)	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD_B; USOCR	2002/10/11 15:44
31	BRS	L31	275	130 with 114	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD_B; USOCR	2002/10/11 15:44
32	BRS	L33	47047	130 with (ammonia or ammonium or amine or alkyl adj3 amine or dialkyl adj3 amine or alkylene adj3 diamine or cycloalkyl adj3 amine or methyl adj3 amine or cyclo adj3 alkyl adj3 amine or "NH3" or "NH.sub.3")	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD_B; USOCR	2002/10/11 15:51

	Type	L #	Hits	Search Text	DBs	Time Stamp
33	BRS	L32	15	131 with (ammonia or ammonium or amine or alkyl adj3 amine or dialkyl adj3 amine or alkylene adj3 diamine or cycloalkyl adj3 amine or methyl adj3 amine or cyclo adj3 alkyl adj3 amine or "NH3" or "NH.sub.3")	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD B; USOCR	2002/10/11 16:04
34	BRS	L34	3900	133 and 118	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD B; USOCR	2002/10/11 15:50
35	BRS	L35	214659	130 not "TRIS!"	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD B; USOCR	2002/10/11 15:52
36	BRS	L36	623	133 not "TRIS!"	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD B; USOCR	2002/10/11 15:54

	Type	L #	Hits	Search Text	DBs	Time Stamp
37	BRS	L37	62	136 and 118	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:52
38	BRS	L38	333	136 not amine	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:55
39	BRS	L39	27	138 and 118	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 15:55
40	BRS	L40	10	135 with (alkyl adj3 amine or dialkyl adj3 amine or alkylene adj3 diamine or cycloalkyl adj3 amine or methyl adj3 amine or cyclo adj3 alkyl adj3 amine or ethyl adj amine or propyl adj amine or butyl adj amine or terbutyl adj amine or cyclopropyl adj amine or cyclobutyl adj amine or cyclopentyl adj amine or cyclohexyl adj amine)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 16:12

	Type	L #	Hits	Search Text	DBs	Time Stamp
41	BRS	L41	2	mattox-m\$.in.	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD; B; USOCR	2002/10/11 16:12
42	BRS	L42	5	valente-e\$.in.	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD; B; USOCR	2002/10/11 16:12
43	BRS	L43	167	synergy\$.asn.	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD; B; USOCR	2002/10/11 16:13
44	BRS	L45	174	143 or 144	USPAT; US-PGP UB; EPO; JPO; DERWENT; IBM_TD; B; USOCR	2002/10/11 16:13

	Type	L #	Hits	Search Text	DBs	Time Stamp
45	BRS	L46	2	145 and 130	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 16:13
46	BRS	L44	7	141 or 142	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B; USOCR	2002/10/11 16:13

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DICTIONARY FILE UPDATES: 10 OCT 2002 HIGHEST RN 460706-73-4

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<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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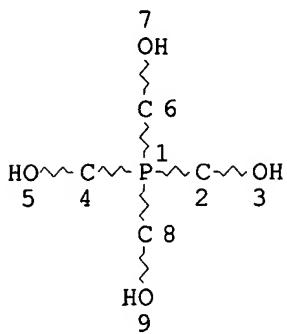
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FILE COVERS 1907 - 11 Oct 2002 VOL 137 ISS 16
FILE LAST UPDATED: 10 Oct 2002 (20021010/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> D QUE
L22 1 SEA FILE=REGISTRY ABB=ON 124-64-1
L23 1 SEA FILE=REGISTRY ABB=ON "TETRAKIS(HYDROXYMETHYL)PHOSPHONIUM
SULFATE"/CN
L25 1 SEA FILE=REGISTRY ABB=ON "TRIS(HYDROXYMETHYL)PHOSPHINE"/CN
L26 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L30	269	SEA FILE=REGISTRY SSS FUL	L26
L31	134	SEA FILE=REGISTRY ABB=ON	L30 AND PMS/CI
L32	135	SEA FILE=REGISTRY ABB=ON	L30 NOT L31
L33	6	SEA FILE=REGISTRY ABB=ON	AMMONIA/CN OR METHYLAMINE/CN OR ETHYLAMINE/CN OR PROPYLAMINE/CN OR ISOPROPYLAMINE/CN OR BUTYLAMINE/CN OR TERTBUTYLAmine/CN
L35	1	SEA FILE=REGISTRY ABB=ON	"1,2-DIAMINOETHANE"/CN
L36	1	SEA FILE=REGISTRY ABB=ON	"1,2-DIAMINOPROPANE"/CN
L37	1	SEA FILE=REGISTRY ABB=ON	"1,3-DIAMINOPROPANE"/CN
L38	1	SEA FILE=REGISTRY ABB=ON	CYCLOPROPYLAMINE/CN
L39	1	SEA FILE=REGISTRY ABB=ON	CYCLOBUTYLAmine/CN
L40	1	SEA FILE=REGISTRY ABB=ON	CYCLOPENTYLAmine/CN
L41	1	SEA FILE=REGISTRY ABB=ON	CYCLOHEXYLAmine/CN
L42	1	SEA FILE=REGISTRY ABB=ON	T-BUTYLAmine/CN
L43	14	SEA FILE=REGISTRY ABB=ON	L33 OR (L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42)
L44	1	SEA FILE=REGISTRY ABB=ON	"IRON SULFIDE"/CN
L45	858	SEA FILE=HCAPLUS ABB=ON	L25 OR L22 OR L23
L46	745	SEA FILE=HCAPLUS ABB=ON	L32
L47	161077	SEA FILE=HCAPLUS ABB=ON	L43
L48	141	SEA FILE=HCAPLUS ABB=ON	(L45 OR L46) AND L47
L49	17173	SEA FILE=HCAPLUS ABB=ON	L44 OR (IRON OR FERROUS OR FERRIC) (W) (SULFIDE OR SULPHIDE) OR FES OR FES2
L50	0	SEA FILE=HCAPLUS ABB=ON	L48 AND L49
L51	299	SEA FILE=HCAPLUS ABB=ON	(L45 OR L46) AND ?AMINE?
L52	198	SEA FILE=HCAPLUS ABB=ON	(L45 OR L46) AND (AMMONIA OR NH3?)
L53	1	SEA FILE=HCAPLUS ABB=ON	(L51 OR L52) AND L49
L54	2	SEA FILE=HCAPLUS ABB=ON	(L45 OR L46) AND L49
L55	2	SEA FILE=HCAPLUS ABB=ON	L50 OR L53 OR L54
L56	151	SEA FILE=HCAPLUS ABB=ON	L31
L57	0	SEA FILE=HCAPLUS ABB=ON	L56 AND L49
L58	2	SEA FILE=HCAPLUS ABB=ON	L55 OR L57
L59	114	SEA FILE=HCAPLUS ABB=ON	(L45 OR L46) AND ?AMINO?
L60	1	SEA FILE=HCAPLUS ABB=ON	L49 AND L59
L61	2	SEA FILE=HCAPLUS ABB=ON	L58 OR L60

=> D L61 ALL 1-2 HITSTR

L61 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS
 AN 2002:89953 HCAPLUS
 DN 136:153714

TI Treatment of **iron sulfide** deposits
 IN Fidoe, Stephen David; Talbot, Robert Eric; Jones, Christopher Raymond;
 Gabriel, Robert

PA Rhodia Consumer Specialties Limited, UK
 SO PCT Int. Appl., 28 pp.
 CODEN: PIXXD2

DT Patent

LA English

IC ICM C02F005-14

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
 Section cross-reference(s): 43, 61

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002008127	A1	20020131	WO 2001-GB3139	20010710
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI	GB 2000-17675	A	20000720		
OS	MARPAT	136:153714			
AB	Mixts. of <u>tris(hydroxymethyl)phosphine</u> (THP) or a THP salt with an <u>aminocarboxylic</u> or an <u>aminophosphonic acid</u> chelant act synergistically to inhibit, prevent, reduce, dissolve or disperse iron sulfide deposits, such as <u>scale in water pipelines</u> , <u>petroleum pipelines</u> and <u>oil water emulsions</u> , and <u>papermaking equipment</u> . The treatment soIn. contains 0.1-50 wt.% of THP and 0.1-50 wt.% chelant.				
ST	iron sulfide scale removal				
IT	Ceramics (beads; treatment of iron sulfide scale)				
IT	Scale (deposits) (control; treatment of iron sulfide scale)				
IT	Surfactants Water purification (treatment of iron sulfide scale)				
IT	Bentonite, uses Zeolites (synthetic), uses RL: NUU (Other use, unclassified); USES (Uses) (treatment of iron sulfide scale)				
IT	2809-21-4, 1-Hydroxyethane-1,1-diphosphonic acid RL: NUU (Other use, unclassified); USES (Uses) (corrosion inhibitor; treatment of iron sulfide scale)				
IT	50-21-5D, Lactic acid, salts 60-00-4, Ethylene diamine tetraacetic acid, uses 64-18-6D, Formic acid, salts 64-19-7D, Acetic acid, salts 65-85-0D, Benzoic acid, salts 69-72-7D, Salicylic acid, salts 77-92-9D, Citric acid, salts 79-09-4D, Propionic acid, salts 79-10-7D, Acrylic acid, salts 80-59-1D, Tiglic acid, salts 87-69-4D, Tartaric acid, salts 88-99-3D, Phthalic acid, salts 97-65-4D, Itaconic				

acid, salts 103-82-2D, Phenylacetic acid, salts 110-15-6D, Succinic acid, salts 110-16-7D, Maleic acid, salts 110-17-8D, Fumaric acid, salts 111-16-0D, Pimelic acid, salts 123-99-9D, Azelaic acid, salts 124-04-9D, Adipic acid, salts 139-13-9, Nitrilo triacetic acid 141-82-2D, Malonic acid, salts 144-62-7D, Oxalic acid, salts 334-48-5D, Capric acid, salts 498-23-7D, Citraconic acid, salts 499-12-7D, Aconitic acid, salts 503-64-0D, Iso crotonic acid, salts 505-48-6D, Suberic acid, salts 565-63-9D, Angelic acid, salts 2767-80-8, Tris(hydroxymethyl)phosphine 2767-80-8D, Tris(hydroxymethyl)phosphine, salts 3724-65-0D, Crotonic acid, salts 6915-15-7D, Malic acid, salts 7440-09-7D, Potassium, **amino** phosphonate derivs. 7440-17-7D, Rubidium, **amino** phosphonate derivs. 7440-23-5D, Sodium, **amino** phosphonate derivs. 7440-46-2D, Cesium, **amino** phosphonate derivs. 7631-86-9, Silica, uses 7757-82-6, Sodium sulfate, uses 14798-03-9, Ammonium ion, uses 14807-96-6, Talc, uses 15827-60-8, **Diethylenetriaminepentakis** (methylenephosphonic acid) 22036-78-8, Briquest 543 55953-80-5 394737-38-3 394737-39-4
 RL: NUU (Other use, unclassified); USES (Uses)
 (treatment of **iron sulfide** scale)

IT 1314-87-0, Lead sulfide 1314-98-3, Zinc sulfide, processes
11126-12-8, Iron sulfide
 RL: REM (Removal or disposal); PROC (Process)
 (treatment of **iron sulfide** scale)

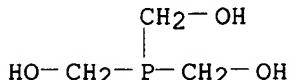
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

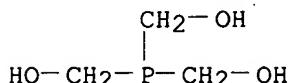
- (1) Carlson, R; GB 1203268 A 1970
- (2) Carlson, R; US 3578708 A 1971 HCPLUS
- (3) Jones, C; WO 0021892 A 2000 HCPLUS

IT 2767-80-8, Tris(hydroxymethyl)phosphine 2767-80-8D, Tris(hydroxymethyl)phosphine, salts
 RL: NUU (Other use, unclassified); USES (Uses)
 (treatment of **iron sulfide** scale)

RN 2767-80-8 HCPLUS
 CN Methanol, phosphinidynetris- (9CI) (CA INDEX NAME)



RN 2767-80-8 HCPLUS
 CN Methanol, phosphinidynetris- (9CI) (CA INDEX NAME)



IT **11126-12-8, Iron sulfide**
 RL: REM (Removal or disposal); PROC (Process)
 (treatment of **iron sulfide** scale)

RN 11126-12-8 HCPLUS
 CN Iron sulfide (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L61 ANSWER 2 OF 2 HCPLUS COPYRIGHT 2002 ACS

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

AN 2000:260187 HCAPLUS
 DN 132:283871
 TI Leaching divalent metal salts
 IN Odell, Barbara; Jones, Christopher Raymond; Talbot, Robert Eric
 PA Albright & Wilson UK Limited, UK
 SO PCT Int. Appl., 17 pp.
 CODEN: PIXXD2

DT Patent
 LA English
 IC ICM C02F005-14
 CC 61-6 (Water)

Section cross-reference(s): 51

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000021892	A1	20000420	WO 1999-GB3352	19991008
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	
	AU 9962174	A1	20000501	AU 1999-62174	19991008
	EP 1133450	A1	20010919	EP 1999-949196	19991008
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	NO 2001001504	A	20010531	NO 2001-1504	20010323
PRAI	GB 1998-22263	A	19981014		
	GB 1998-27177	A	19981211		
	WO 1999-GB3352	W	19991008		
AB	The compns. for leaching deposits of divalent metal salts such as ferrous sulfide comprise: (A) a tetrakis (hydroxymethyl)phosphonium salt; (B) an ammonium salt in a ratio of A:B of (0.01-100):1; and (c) sufficient of an acid, which is substantially unreactive with tetrakis(hydroxymethyl)phosphonium ion or ammonium ion to maintain the pH 1 to $\text{pH} \leq 4.5$. The compns. may be solns. or particulate solids. The method is esp. applicable to ferrous sulfide deposits in oil wells and adjacent strata.				
ST	ferrous sulfide removal leaching				
IT	Geothermal wells				
	Oil wells				
	Wells				
	(leaching divalent metal salts such as ferrous sulfide from wells)				
IT	Carboxylic acids, uses				
	RL: NUU (Other use, unclassified); USES (Uses)				
	(leaching divalent metal salts such as ferrous sulfide from wells)				
IT	57-10-3, Hexadecanoic acid, uses 57-11-4, Octadecanoic acid, uses 60-33-3, Linoleic acid, uses 64-18-6, Formic acid, uses 64-19-7, Acetic acid, uses 76-03-9, Tri chloro acetic acid, uses 110-15-6, Butanedioic acid, uses 110-16-7, Maleic acid, uses 110-94-1, Glutaric acid 111-16-0, Heptanedioic acid 112-80-1, 9-Octadecenoic acid (9Z)-, uses 123-99-9, Nonanedioic acid, uses 124-04-9, Hexanedioic acid, uses 124-64-1, Tetrakis (hydroxymethyl)phosphonium chloride 505-48-6, Octanedioic acid 540-69-2, Ammonium formate 631-61-8, Ammonium acetate 5940-69-2, Tetrakis (hydroxymethyl)phosphonium bromide				

7580-37-2, Tetrakis (hydroxymethyl)phosphonium acetate
 7646-88-0, Ammonium tri chloro acetate 7647-01-0, Hydrochloric acid,
 uses 7664-38-2, Phosphoric acid, uses 7664-93-9, Sulfuric acid, uses
 7782-99-2, Sulfurous acid, uses 7783-20-2, Ammonium sulfate, uses
 10035-10-6, Hydrogen bromide, uses 10043-35-3, Boric acid, uses
 10196-04-0, Ammonium sulfite 11128-98-6, Ammonium borate 12124-97-9,
 Ammonium bromide 12125-02-9, Ammonium chloride, uses 13446-12-3
 13598-36-2, Phosphorous acid, uses 14798-03-9, Ammonium, uses
 22031-17-0, Tetrakis (hydroxymethyl)phosphonium phosphate
 24655-84-3 25151-36-4, Tetrakis
 (hydroxymethyl)phosphonium formate 55566-30-8, Tetrakis
 (hydroxymethyl)phosphonium sulfate 110499-12-2
 263747-72-4, uses 263747-73-5 263747-74-6
 RL: NUU (Other use, unclassified); USES (Uses)
 (leaching divalent metal salts such as **ferrous sulfide** from wells)

IT 1317-37-9, **Ferrous sulfide**

RL: REM (Removal or disposal); PROC (Process)
 (leaching divalent metal salts such as **ferrous sulfide** from wells)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

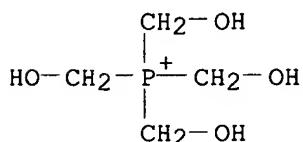
RE

- (1) Albright & Wilson; GB 2145708 A 1985 HCPLUS
- (2) Albright & Wilson; GB 2257043 A 1993 HCPLUS
- (3) Albright & Wilson; GB 2271787 A 1994 HCPLUS
- (4) Albright & Wilson; EP 0709518 A 1996 HCPLUS
- (5) Hooker Chemical; GB 1065547 A
- (6) Hooker Chemical; GB 1251032 A 1971 HCPLUS

IT 124-64-1, Tetrakis (hydroxymethyl)phosphonium chloride
 5940-69-2, Tetrakis (hydroxymethyl)phosphonium bromide
 7580-37-2, Tetrakis (hydroxymethyl)phosphonium acetate
 22031-17-0, Tetrakis (hydroxymethyl)phosphonium phosphate
 24655-84-3 25151-36-4, Tetrakis
 (hydroxymethyl)phosphonium formate 55566-30-8, Tetrakis
 (hydroxymethyl)phosphonium sulfate 110499-12-2
 263747-72-4, uses 263747-73-5 263747-74-6
 RL: NUU (Other use, unclassified); USES (Uses)
 (leaching divalent metal salts such as **ferrous sulfide** from wells)

RN 124-64-1 HCPLUS

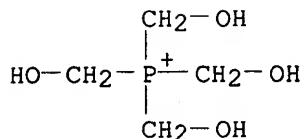
CN Phosphonium, tetrakis(hydroxymethyl)-, chloride (8CI, 9CI) (CA INDEX NAME)



● Cl⁻

RN 5940-69-2 HCPLUS

CN Phosphonium, tetrakis(hydroxymethyl)-, bromide (8CI, 9CI) (CA INDEX NAME)

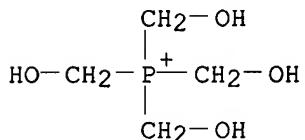


● Br⁻

RN 7580-37-2 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, acetate (salt) (8CI, 9CI) (CA INDEX NAME)

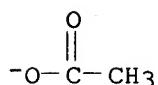
CM 1

CRN 24655-84-3
CMF C4 H12 O4 P



CM 2

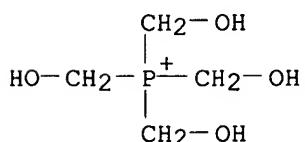
CRN 71-50-1
CMF C2 H3 O2



RN 22031-17-0 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, phosphate (3:1) (salt) (8CI, 9CI) (CA INDEX NAME)

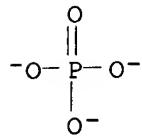
CM 1

CRN 24655-84-3
CMF C4 H12 O4 P

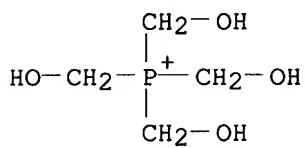


CM 2

CRN 14265-44-2
CMF O4 P



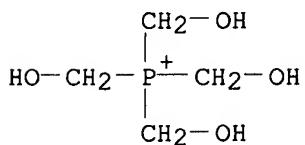
RN 24655-84-3 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 25151-36-4 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, formate (salt) (8CI, 9CI) (CA INDEX NAME)

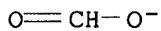
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CRN 24655-84-3
CMF C4 H12 O4 P



CM 2

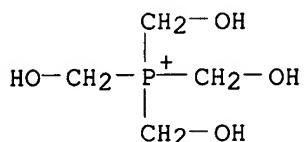
CRN 71-47-6
CMF C H O2



RN 55566-30-8 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

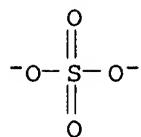
CM 1

CRN 24655-84-3
CMF C4 H12 O4 P



CM 2

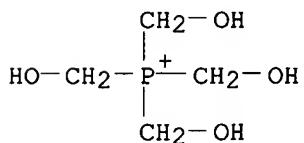
CRN 14808-79-8
CMF O4 S



RN 110499-12-2 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, phosphite (3:1) (salt) (9CI) (CA INDEX NAME)

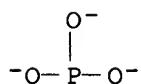
CM 1

CRN 24655-84-3
CMF C4 H12 O4 P



CM 2

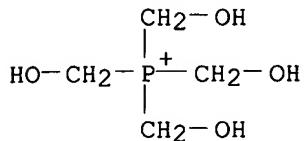
CRN 14901-63-4
CMF O3 P



RN 263747-72-4 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, salt with trichloroacetic acid (1:1) (9CI) (CA INDEX NAME)

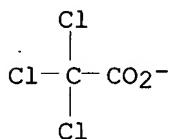
CM 1

CRN 24655-84-3
CMF C4 H12 O4 P



CM 2

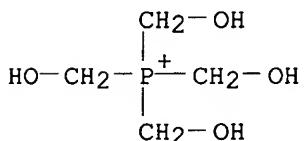
CRN 14357-05-2
CMF C2 C13 O2



RN 263747-73-5 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, salt with boric acid (H₃BO₃) (3:1)
(9CI) (CA INDEX NAME)

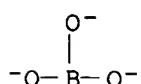
CM 1

CRN 24655-84-3
CMF C4 H12 O4 P



CM 2

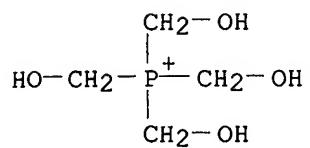
CRN 14213-97-9
CMF B O3



RN 263747-74-6 HCAPLUS
CN Phosphonium, tetrakis(hydroxymethyl)-, sulfite (2:1) (9CI) (CA INDEX
NAME)

CM 1

CRN 24655-84-3
CMF C4 H12 O4 P



CM 2

CRN 14265-45-3
CMF O3 S

